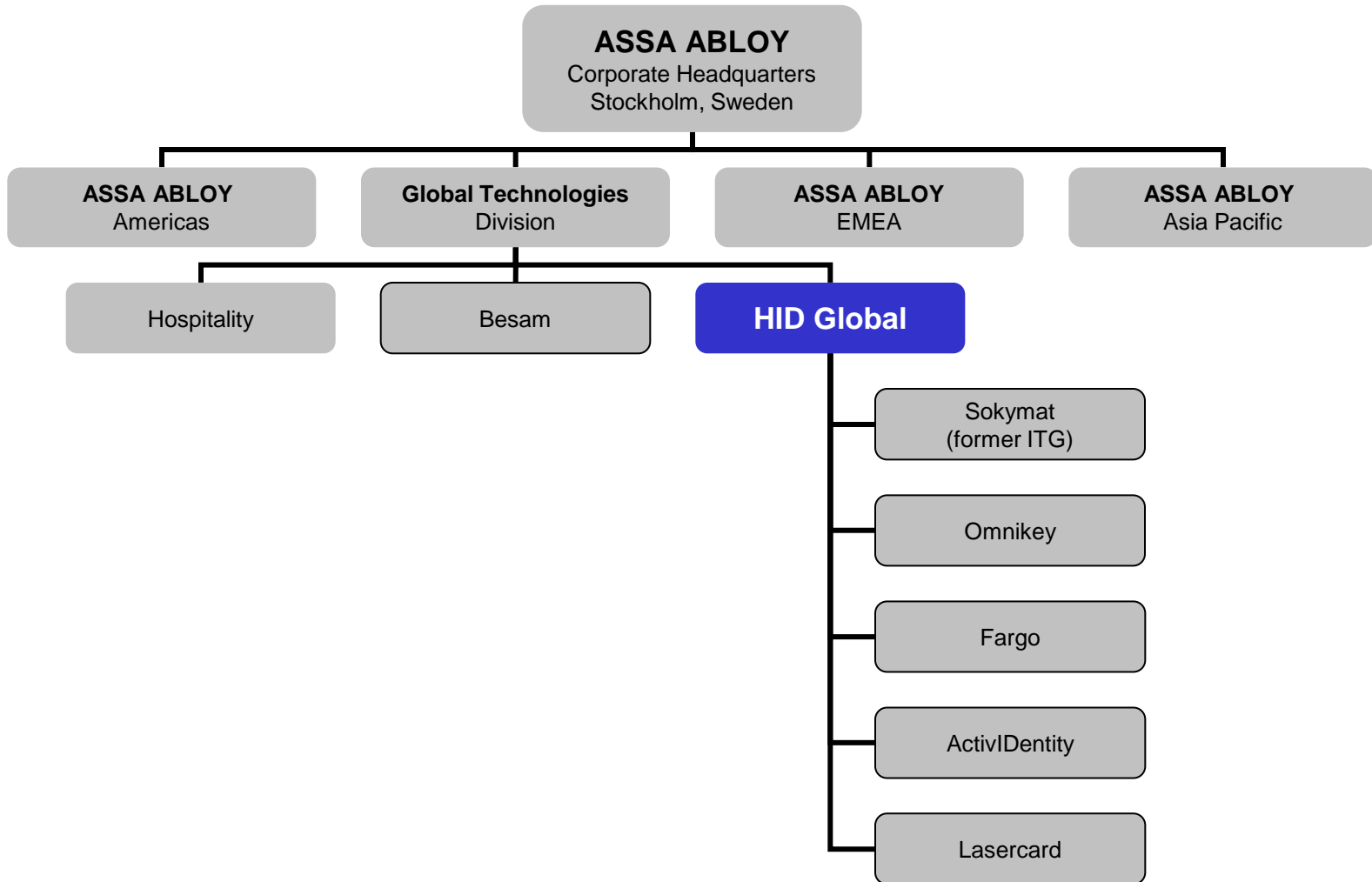




End User Presentation

2011-03-09

ASSA ABLOY



About HID Global

- ▶ Clear market leader in contact less cards and readers for access control
- ▶ Award-winning are used in over 70% of [Fortune 1000 companies](#)
- ▶ The most highly recognized brand in the security industry worldwide
- ▶ Over 300 million cards and 6 million readers shipped annually
- ▶ Network of over 100 application solutions partners worldwide



About HID Global

- ▶ HID Global's objective is to be the clear worldwide leader in providing **solutions for the delivery of secure identity**.
- ▶ We will leverage our unique delivery capabilities, Trusted Identity Platform™, installed base, and global footprint to create customer value as the trusted source for products, services, and know-how related to the delivery of secure identity.



Product Portfolio - IAM

ACCESS CONTROL READERS



MIFARE®
DESFire®

ACCESS CREDENTIALS



MIFARE®
DESFire®

NETWORKED ACCESS SOLUTIONS



IDENTITY & ACCESS MANAGEMENT



Product Portfolio - IDS

READER BOARDS & MODULES



Hi Frequency . Low Frequency . Contact

MOBILE READERS



Hi Frequency . Low Frequency . Contact

FOBS, TOKENS & TAGS



Hi Frequency . Low Frequency . UHF

CARDS & PRELAMINATES



Hi Frequency . Low Frequency . Contact



Brands

Endorsement Brand	ASSA ABLOY
Power Brand	HID
Product Brands	         
Program Brands	 



4 levels of access control



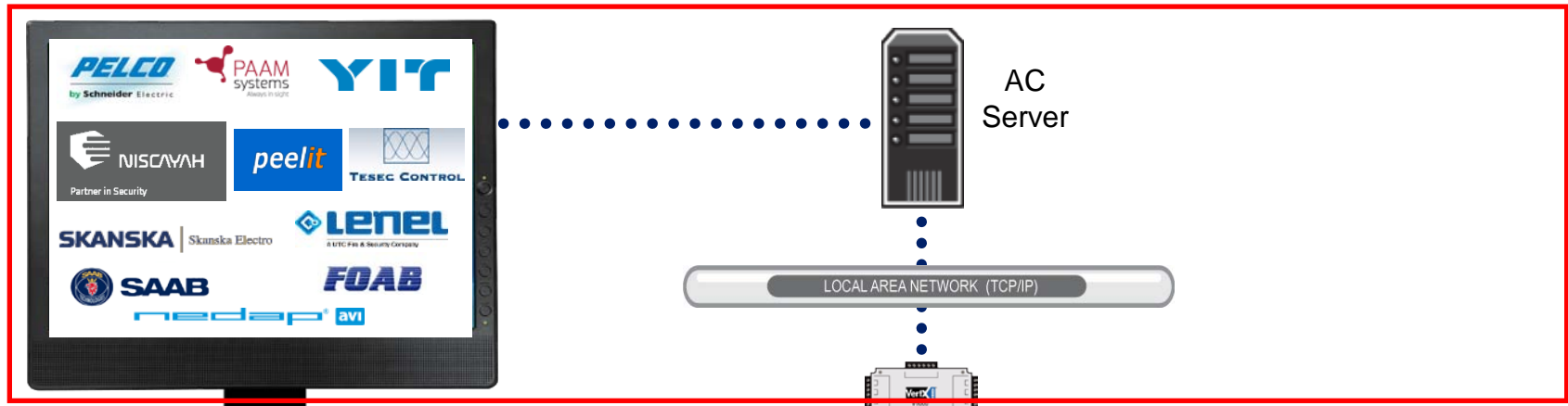
Traditional Access Control

FACT

- ✓ Proprietary solution
- ✓ Locked to one system integrator or manufacturer.
- ✓ Often NOT using ISO standards.
 - Own encryption methods if use of any encryption at all??
 - Using RS485, Wiegand, Current Loop with a twist or other proprietary interface??
- ✓ Security by OBSCURITY



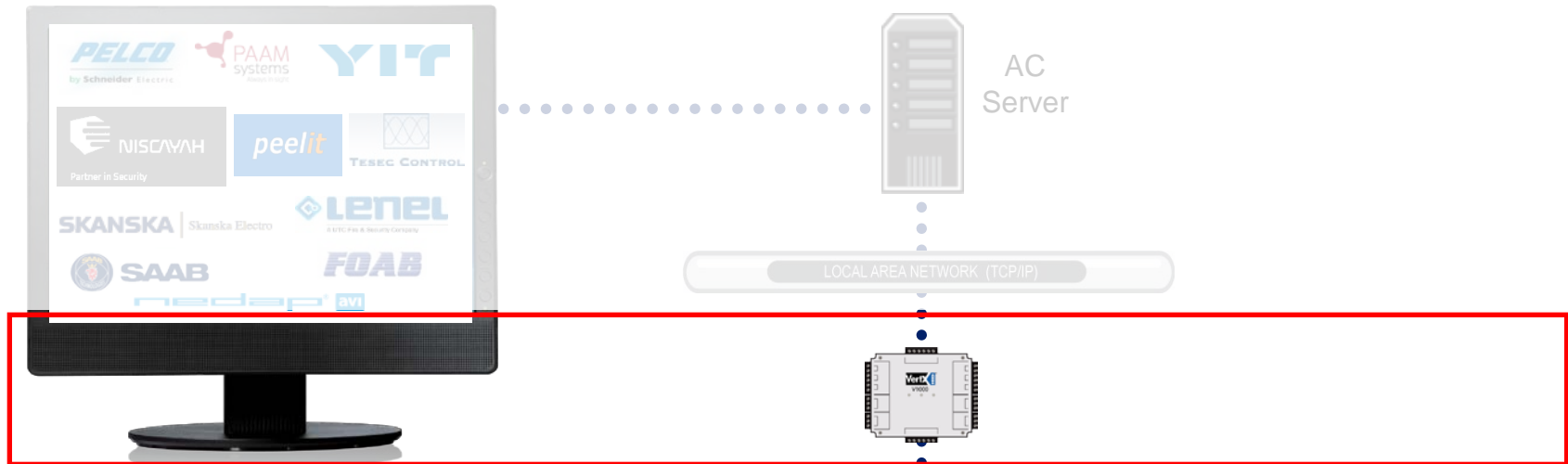
Level 1 - Software



SOFTWARE

- ✓ Life time cycle
 - 5-7 Years
- ✓ Reason: Bill Gates (Microsoft)
 - win98, win2000, XP, Vista, Win7
- ✓ Additional cost over time
 - Development, drivers support ect.
- ✓ HID Global don't do SOFTWARE!!

Level 2 - Controller



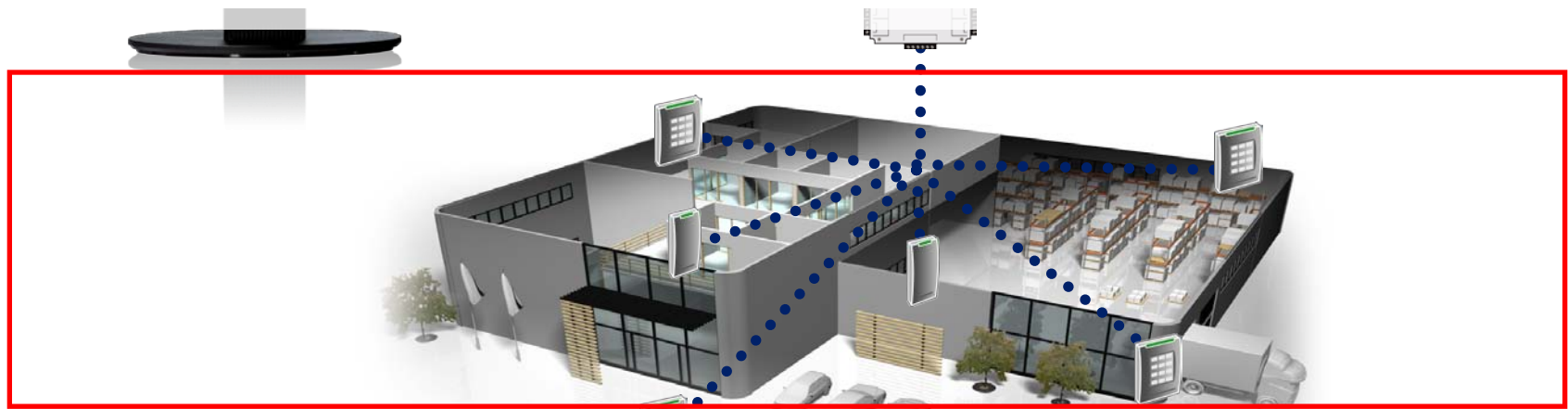
CONTROLLERS

- ✓ Life time cycle
 - 15-20 Years
- ✓ Reason: New features, interfaces and EU regulations
 - Wiegand, HiO, OSDP/HADP, Aperio, RS485, RS232
 - ROHS ect
 - Open API

Level 3 – Readers and choice of technologies

READERS

- ✓ Life time cycle
 - 5-10 Years historically (Only with HID Lifetime)
- ✓ Reason: New technologies, interfaces and features
 - EM4102, AWID, Indala, HID Prox, HiTag, Legic,
 - Mifare Classic, Mifare DESFire 0.6, DESFire EV1 ect.



- Wiegand, HiO, OSDP/HADP, Aperio, RS485, RS422
RS232, USB, UART ect.

Level 4 – Cards and choice of technologies

CARDS

- ✓ Life time cycle
 - 3-5 years
- ✓ ISO Standards
 - ISO14443A/B, ISO15693, ISO7810, ISO10373
- ✓ Reason
 - New technologies
 - Anti-counterfeiting
 - Clones, Manipulation
 - Multiplication support
 - Key Management
 - Future proofed and backward compatible





Technologies

125 kHz

- ▶ EM4102
- ▶ HID Prox
- ▶ Indala
- ▶ AWID
- ▶ Etc

13,56 MHz

- ▶ MIFARE Classic
- ▶ iCLASS
- ▶ MIFARE DESFire
- ▶ Mifare DESFire EV1
- ▶ Etc

Less Risk with Higher Security

	Security Threat	Replay Attack	Cloning	Data Confidentiality
	Protection	Mutual Authentication	Key Diversification	DES, 3DES, AES encryption
RFID Technology	EM	No	No	No
	Prox	No	No	No
	Indala	No	No	No
	Mifare CSN	No	No	No
	Mifare	Cracked	No	No
	DESFire EV1	Yes	Yes	Yes
	iCLASS	Yes	Yes	Yes



Formats



Types of formats?

- ▶ There are many different formats (Hundreds) but they are all managed in one of a few ways;
 - Open
 - Tracked/Open
 - Proprietary/Tracked
 - Corporate 1000



Migration



Migration card

13.56 MHz:

- iCLASS
- Mifare Classic CSN
- DESFire 0.6 CSN
- DESFire EV1 CSN

Magstripe

Anti-counterfeit:

- UV inc
- OVI
- Guilloche
- Micro Text
- Hologram

125 kHz:

- HID Prox
- Indala
- EM4102
- AWID

Contact Smart Card

MultiCLASS Readers

- 125 kHz:
- HID Prox
 - Indala
 - EM4102
 - AWID

- 13.56 MHz:
- iCLASS
 - Mifare Classic CSN
 - DESFire 0.6 CSN
 - DESFire EV1 CSN

- Other technologies:
- Magstripe

Field upgradeable settings/configuration with configuration cards

- Interface:
- Wiegand
 - Clock & Data

- Connectors:
- 3 meter pig tale
 - 45 cm pig tale

With/Without key pad

Back lid key pad

13.56 MHz migration Readers

13.56 MHz:

- iCLASS
- Mifare Classic
- DESFire 0.6
- DESFire EV1

Interface:

- Wiegand
- Clock & Data
- OSDP
- HADP

Field upgradeable settings/configurations with a configuration card

Connectors:
- Terminal

Field upgradeable RFID technology with a application card

With/Without key pad

Back lid key pad



Identity on Demand Services

IoD services represents the global know-how, tools, delivery, speed and ongoing support needed to ensure the success of even the most demanding credential programs.



Cost Comparison

Scenario 1: Company “B” requires 2 issuance locations capable of producing an initial run of 5,000 dual sided cards:

- ▶ 1 card design
- ▶ Color front
- ▶ Resin black barcode on back
- ▶ HID iCLASS 2k (13.56 MHz)
- ▶ Read and store iCLASS card number during issuance process

Number of Cards	5,000
Inhouse Production Costs:	
Labor - Procurement/IT/Production/QA	\$ 19,480.52
Project specific resources and equipment rental	\$ 10,000.00
Onsite Inventory (Printer Consumables)	\$ 2,600.00
Fallout	\$ 3,208.14
Total	\$ 35,288.66
Card Personalization Service Costs:	
Setup and Template Design	\$ 345.13
Card Personalization Services	\$ 21,850.00
Total	\$ 22,195.13
Card Bureau Savings	\$ 13,093.53
Unit Cost Per Card: In-house	\$ 7.06
Unit Cost Per Card: Card Personalization Services	\$ 4.44
Card Bureau Savings Per Card	\$ 2.62



Consultant text

- ▶ Readers and cards shall be of a ISO 14443 A or B and / or ISO 15693 type, using mutual authentication as well as diversified keys when reading and writing to a from credentials.
- ▶ Unique Wiegand information or such on credentials shall be read from the secure fields of the cards by the reader.
- ▶ The format shall be owned by the enduser and be no less then 35 bit long.
- ▶ The credentials shall be programmed by manufacturer for security and cost reasons before delivery.
- ▶ The only credentials allowed to be read in the customers readers are credentials issued by the customer or accredited partner on customer demand.
- ▶ Readers shall have standard connectors to fit a majority of the systems on the market. Only open protocols allowed such as Wiegand, OSDP or HIO.
- ▶ Readers shall have flexible heartbeat functionality.
- ▶ Lifetime warranty shall be delivered on readers and credentials.



